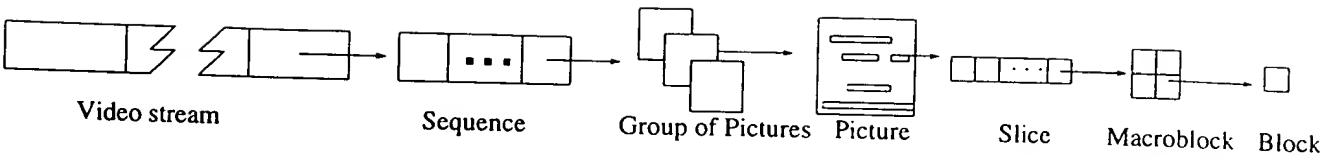
Video stream
Sequence
Group of Pictures
Picture
Slice
Macroblock
Block

Fig 1

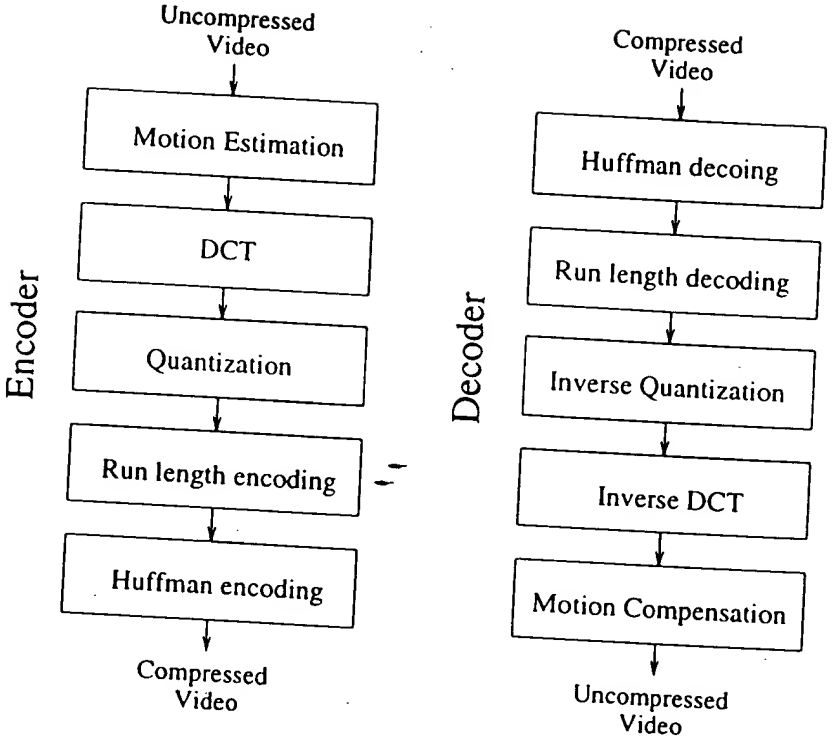
Encoder
Uncompressed Video
Motion Estimation
DCT
Quantization
Run length encoding
Huffman encoding
Compressed Video
Decoder
Compressed Video
Huffman decoing
Run length decoding
Inverse Quantization
Inverse DCT
Motion Compensation
Uncompressed Video

Fig. 2

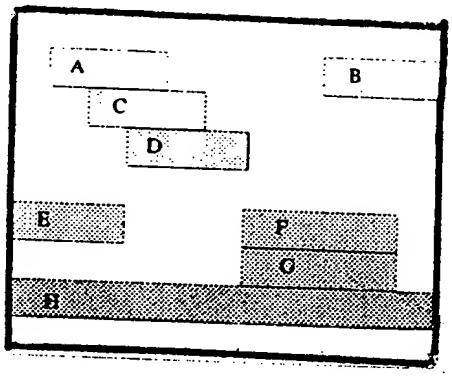

FIG. 3

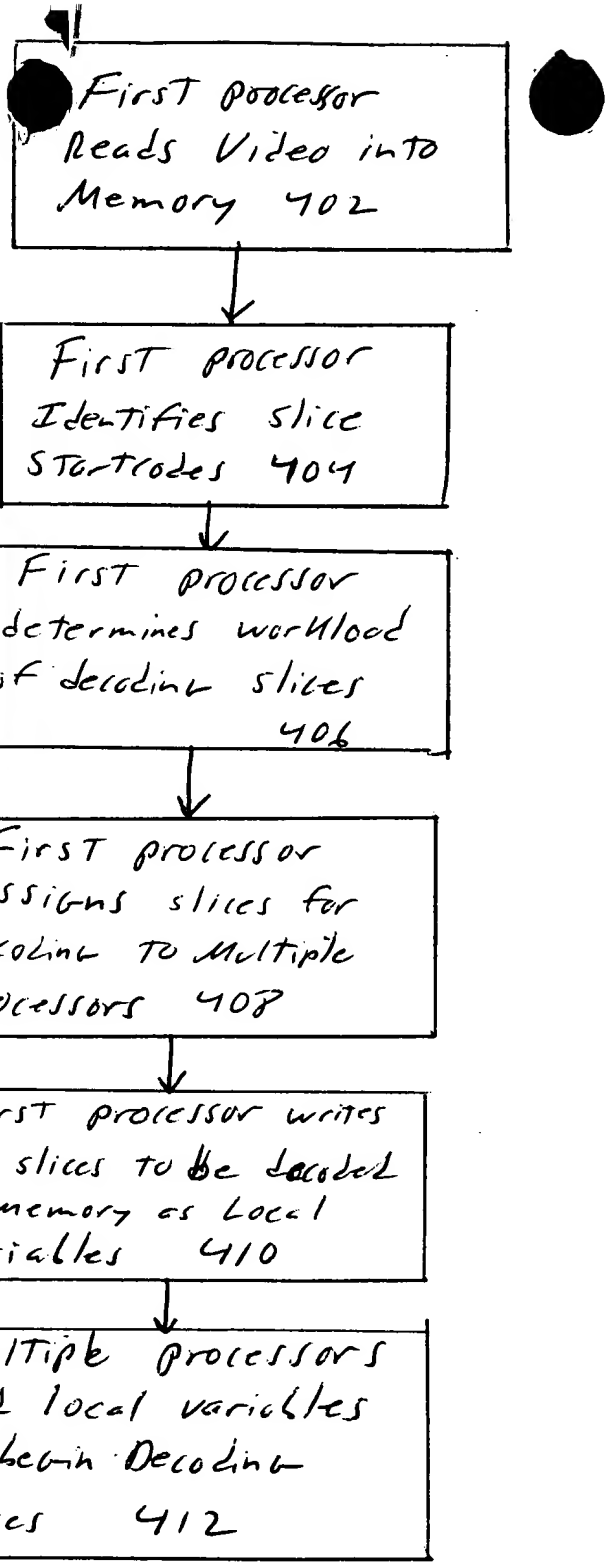
First processor Reads Video into Memory 402
First processor Identifies slice Startcodes 404
First processor determines workload of decoding slices 406
First processor assigns slices for decoding to Multiple Processors 408
First processor writes the slices to be decoded in memory as Local variables 410
Multiple processors read local variables to begin Decoding Slices 412

FIG. 4

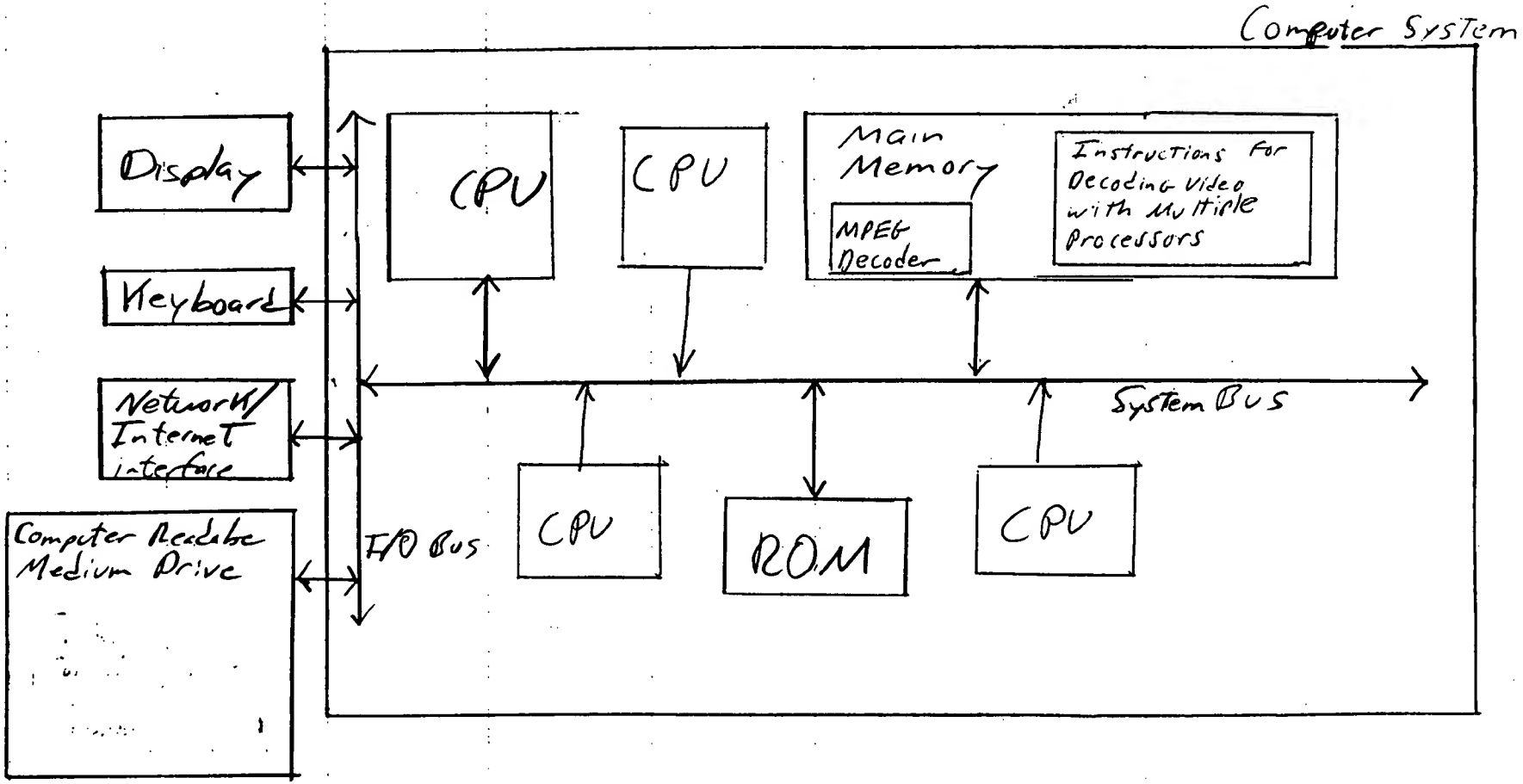
Computer System
Display
Keyboard
Network/ Internet interface
Computer Readable Medium Drive
CPU
CPU
Main Memory
MPEG Decoder
Instructions for Decoding Video with Multiple Processors
System Bus
I/O Bus
CPU
ROM
CPU

FIG. 5